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(71) Applicant (*for all designated States except US*): RED SPIDER TECHNOLOGY LIMITED [GB/GB]; Westhill Business Centre, Arnhall Business Park, Westhill, Aberdeen AB32 6UF (GB).

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(72) Inventor; and

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(75) Inventor/Applicant (*for US only*): REID, Michael, Adam [GB/GB]; 23 Cromer Gardens, Kingswells, Aberdeen AB15 8TF (GB).

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(74) Agent: KENNEDYS PATENT AGENCY LIMITED; Floor 5, Queens House, 19 St. Vincent Place, Glasgow G1 2DT (GB).

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(54) Title: ACTUATING MECHANISM

(57) Abstract: An actuating mechanism for use in a tool such as a plug used in oil and gas wells. The mechanism being operable under pressure in the well bore to set the plug in a first natural closed state for a pressure under a predetermined pressure range; a second closed state wherein the plug is locked closed regardless of the pressure; and a third open state by increasing the pressure to the predetermined pressure range and holding the pressure in the range for a predetermined time. Electronic and mechanical, dual piston, actuating mechanisms are described as is a method of controlling fluid flow in a well bore using the plug and performing a pressure test against the plug.